

GSFC OPERATIONS CONTROL CENTER
GODDARD SPACE FLIGHT CENTER
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

VOLUME 6, NO. 10

MAY 31, 1966

SATELLITE SITUATION REPORT

THE FOLLOWING REPORT REFLECTS DATA COMPUTED AND COMPILED
BY THE GODDARD SPACE FLIGHT CENTER, NORAD, AND THE SMITHSONIAN
ASTROPHYSICAL OBSERVATORY AS OF 1200Z ON MAY 31, 1966.]

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI- NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1958 LAUNCHES									
ALPHA 1	EXPLORER 1	004	US	1 FEB	103.6	33.18	1513	339	
BETA 1	ROCKET BODY	016	US	17 MAR	138.4	34.25	4313	654	
BETA 2	VANGUARD 1	005	US	17 MAR	134.0	34.24	3936	652	
BETA 3		1576	US	17 MAR	132.7	34.23	3835	638	
1959 LAUNCHES									
ALPHA 1	VANGUARD 2	011	US	17 FEB	125.4	32.87	3287	553	
ALPHA 2	ROCKET BODY	012	US	17 FEB	129.7	32.91	3654	558	
ETA 1	VANGUARD 3	020	US	18 SEP	129.8	33.32	3715	511	
MU 1	LUNIK 1	112	USSR	2 JAN	HELIOCENTRIC ORBIT				
NU 1	PIONEER 4	113	US	3 MAR	HELIOCENTRIC ORBIT				
IOTA 1	EXPLORER 7	022	US	13 OCT	101.1	50.31	1071	553	
IOTA 2	ROCKET BODY	023	US	13 OCT	100.9	50.30	1051	549	
1960 LAUNCHES									
ALPHA 1	PIONEER 5	027	US	11 MAR	HELIOCENTRIC ORBIT				
BETA 1	ROCKET BODY	028	US	1 APR	99.1	48.38	738	692	
BETA 2	TIROS 1	029	US	1 APR	99.2	48.37	744	695	
BETA 3	NONE	101	US	1 APR	97.9	48.49	696	615	
BETA 4	NONE	115	US	1 APR	99.9	48.16	803	701	
GAMMA 2	TRANSIT 1B	031	US	13 APR	93.3	51.21	532	341	
GAMMA 4	NONE	099	US	13 APR	96.7	51.25	721	478	
ZETA 1	MIDAS 2	043	US	24 MAY	94.3	33.04	491	470	
ETA 1	TRANSIT 2A	045	US	22 JUN	101.6	66.70	1055	616	
ETA 2	GREB	046	US	22 JUN	101.6	66.69	1053	613	
ETA 3	ROCKET BODY	047	US	22 JUN	101.4	66.71	1047	602	
ETA 4		840	US	22 JUN	101.5	66.69	1051	612	
ETA 5		841	US	22 JUN	101.5	66.70	1044	616	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI- NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1960 LAUNCHES									
IOTA 1	ECHO 1	049	US	12 AUG	112.7	47.28	1814	879	
IOTA 2	ROCKET BODY	050	US	12 AUG	118.1	47.22	1688	1499	
IOTA 3	METAL OBJECT	051	US	12 AUG	118.2	47.26	1692	1511	
IOTA 4	METAL OBJECT	052	US	12 AUG	CURRENT ELEMENTS NOT MAINTAINED				
IOTA 5	METAL OBJECT	053	US	12 AUG	118.4	47.32	1692	1528	
NU 1	COURIER 1B	058	US	4 OCT	107.0	28.31	1208	966	
NU 2	ROCKET BODY	059	US	4 OCT	106.6	28.24	1207	924	
XI 1	EXPLORER 8	060	US	3 NOV	112.2	49.94	2236	419	
XI 2	ROCKET BODY	062	US	3 NOV	111.7	49.94	2187	418	
XI 3	NONE	069	US	3 NOV	108.2	49.38	1894	393	
XI 4	NONE	105	US	3 NOV	109.9	50.52	2017	426	
PI 1	TIROS 2	063	US	23 NOV	98.2	48.47	724	623	
PI 2	ROCKET BODY	064	US	23 NOV	98.1	48.50	724	609	
PI 3	NONE	074	US	23 NOV	98.1	48.52	719	619	
PI 4	NONE	075	US	23 NOV	98.3	48.51	731	621	
1961 LAUNCHES									
ALPHA 1	SAMOS 2	070	US	31 JAN	94.7	97.37	539	467	
ALPHA 2	METAL OBJECT	079	US	31 JAN	94.6	97.38	533	463	
GAMMA 1	VENUS PROBE	080	USSR	12 FEB	HELIOCENTRIC ORBIT				
DELTA 2	ROCKET BODY	082	US	16 FEB	118.5	38.84	2592	634	
DELTA 3	NONE	085	US	16 FEB	CURRENT ELEMENTS NOT MAINTAINED				
KAPPA 1	EXPLORER 10	098	US	25 MAR	POSITION UNCERTAIN				
NU 1	EXPLORER 11	107	US	27 APR	107.9	28.78	1770	487	
OMICRON 1	TRANSIT 4A	116	US	29 JUN	103.8	66.81	998	882	
OMICRON 2	INJUN-SR-3	117	US	29 JUN	103.8	66.84	1000	880	
OMICRON 3-212**	METAL OBJECTS		US	29 JUN					
RHO 1	TIROS 3	162	US	12 JUL	100.4	47.89	814	740	
RHO 2	ROCKET BODY	165	US	12 JUL	100.3	47.89	809	738	
									\$54\$324\$150\$400

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
---------------	------------------	-----------------------------	---------------	---------------	---------------------------	--------------------------	-----------------------	------------------------	--------------------------------------

1961 LAUNCHES (CONT'D)

RHO 3	METAL OBJECT	166	US	12 JUL	98.8	47.93	792	612	
RHO 4	METAL OBJECT	167	US	12 JUL	102.0	47.85	933	773	
SIGMA 1	MIDAS 3	163	US	12 JUL	161.5	91.25	3547	3344	
SIGMA 3	METAL OBJECT	188	US	12 JUL	161.1	91.21	3544	3320	
SIGMA 4	METAL OBJECT	196	US	12 JUL	161.9	91.21	3571	3353	
UPSILON 1	EXPLORER 12	170	US	16 AUG	CURRENT ELEMENTS NOT MAINTAINED				
A DELTA 1	MIDAS 4	192	US	21 OCT	166.0	95.85	3751	3502	
A DELTA 3	METAL OBJECT	194	US	21 OCT	166.0	95.84	3741	3480	
A DELTA 4	METAL OBJECT	195	US	21 OCT	166.4	95.86	3804	3483	
A DELTA 5		2009	US	21 OCT	165.7	95.84	3732	3501	
A ETA 1	TRANSIT 4B	202	US	15 NOV	105.8	32.43	1103	955	
A ETA 2	TRAAC	205	US	15 NOV	105.8	32.43	1109	952	
A ETA 3	ROCKET BODY	204	US	15 NOV	105.6	32.43	1098	948	

1962 LAUNCHES

ALPHA 1	RANGER 3	221	US	26 JAN	HELIOCENTRIC ORBIT				
ALPHA 2	ROCKET BODY	222	US	26 JAN	HELIOCENTRIC ORBIT				
BETA 1	TIROS 4	226	US	8 FEB	100.4	48.30	838	713	
BETA 2	ROCKET BODY	227	US	8 FEB	101.3	48.13	943	701	
BETA 3	METAL OBJECT	228	US	8 FEB	99.5	48.42	763	702	
BETA 4	METAL OBJECT	229	US	8 FEB	100.3	48.28	836	707	
ZETA 1	ORB.SOL.OBS. 1	255	US	7 MAR	96.0	32.83	587	545	
ZETA 2	ROCKET BODY	257	US	7 MAR	96.9	32.83	579	545	
KAPPA 1		271	US	9 APR	153.0	86.65	3409	2788	
KAPPA 3		273	US	9 APR	152.6	86.64	3371	2795	
KAPPA 4		274	US	9 APR	153.3	86.63	3426	2800	
MU 2	ROCKET BODY	282	US	23 APR	HELIOCENTRIC ORBIT				
OMICRON 1	ARIEL	285	US/UK	26 APR	100.3	53.89	1152	390	136.405
OMICRON 2	ROCKET BODY	288	US	26 APR	100.1	53.88	1134	391	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI- NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1962 LAUNCHES (CONT'D)									
A ALPHA 1	TIROS 5	309	US	19 JUN	100.5	58.11	973	589	
A ALPHA 2	ROCKET BODY	311	US	19 JUN	100.4	58.12	961	590	
A ALPHA 3	METAL OBJECT	312	US	19 JUN	101.7	58.20	1084	597	
A ALPHA 4	METAL OBJECT	313	US	19 JUN	99.1	57.98	850	579	
A EPSILON 1	TELSTAR 1	340	US	10 JUL	157.8	44.79	5643	945	
A EPSILON 2	ROCKET BODY	341	US	10 JUL	157.6	44.78	5627	947	
A OMICRON 1		369	US	23 AUG	99.5	98.69	857	617	
A OMICRON 2		370	US	23 AUG	98.2	98.60	748	600	
A OMICRON 3		378	US	23 AUG	100.8	98.78	970	623	
A OMICRON 4		388	US	23 AUG	99.5	98.69	856	615	
A RHO 1	MARINER 2	374	US	27 AUG	HELIOCENTRIC ORBIT				
A RHO 2	ROCKET BODY	375	US	27 AUG	HELIOCENTRIC ORBIT				
A PSI 1	TIROS 6	397	US	18 SEP	98.7	58.31	713	683	
A PSI 2	ROCKET BODY	398	US	18 SEP	98.6	58.30	706	682	
A PSI 3	METAL OBJECT	399	US	18 SEP	99.4	58.45	763	695	
A PSI 4	METAL OBJECT	400	US	18 SEP	98.0	58.21	682	646	
B ALPHA 1	ALOUETTE	424	CANADA	29 SEP	105.5	80.48	1036	999	
B ALPHA 2	ROCKET BODY	426	US	29 SEP	105.4	80.47	1031	999	
B ALPHA 3	METAL OBJECT	510	US	29 SEP	105.4	80.51	1024	1001	
B ALPHA 4	METAL OBJECT	511	US	29 SEP	105.5	80.42	1041	994	
B GAMMA 1	EXPLORER 14	432	US	2 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B GAMMA 2#	ROCKET BODY	NNA	US	2 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B ETA 1	RANGER 5	439	US	18 OCT	HELIOCENTRIC ORBIT				
B ETA 2	ROCKET BODY	440	US	18 OCT	HELIOCENTRIC ORBIT				
B KAPPA 1		444	US	26 OCT	118.3	71.36	3004	201	
B LAMBDA 1	EXPLORER 15	445	US	27 OCT	CURRENT ELEMENTS NOT MAINTAINED				
B LAMBDA 2#	ROCKET BODY	NNA	US	27 OCT	INSUFFICIENT OBSERVATIONS				
B MU 1	ANNA 1B	446	US	31 OCT	107.9	50.13	1183	1076	\$162\$324
B MU 2	ROCKET BODY	447	US	31 OCT	107.6	50.21	1161	1072	
B NU 3		450	USSR	1 NOV	HELIOCENTRIC ORBIT				

\$136.591\$136.078

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1962 LAUNCHES (CONT'D)									
B TAU 1		502	US	13 DEC	100.5	70.30	1340	221	
B TAU 2	INJUN 3	504	US	13 DEC	108.4	70.31	2069	235	
B TAU 5		513	US	13 DEC	100.4	70.26	1321	224	
B TAU 6		520	US	13 DEC	107.0	70.28	1938	236	
B UPSILON 1	RELAY 1	503	US	13 DEC	185.1	47.50	7433	1325	
B UPSILON 2	ROCKET BODY	515	US	13 DEC	184.8	47.50	7416	1325	
B CHI 1	EXPLORER 16	506	US	16 DEC	104.4	52.03	1177	752	
B PSI 1	TRANSIT 5A	509	US	19 DEC	99.0	90.66	735	694	
B PSI 2		514	US	19 DEC	97.5	90.74	716	569	
B PSI 3		519	US	19 DEC	99.0	90.65	746	682	
B PSI 4		523	US	19 DEC	100.2	90.51	838	697	

\$136.140;136.621

1963 LAUNCHES

1963 03A		527	US	16 JAN	94.3	81.89	515	457	
1963 04A	SYNCOM 1	553	US	14 FEB	CURRENT ELEMENTS NOT MAINTAINED				
1963 04B	ROCKET BODY	532	US	14 FEB	CURRENT ELEMENTS NOT MAINTAINED				
1963 05A		533	US	19 FEB	97.6	100.48	793	500	
1963 05B		534	US	19 FEB	97.7	100.49	796	501	
1963 05C		535	US	19 FEB	96.7	100.47	739	464	
1963 05D		536	US	19 FEB	98.3	100.50	832	521	
1963 08B		566	USSR	2 APR	BARYCENTRIC ORBIT				
1963 09A	EXPLORER 17	564	US	3 APR	92.1	57.59	519	236	
1963 13A	TELSTAR 2	573	US	7 MAY	225.3	42.73	10797	976	
1963 13B	ROCKET BODY	575	US	7 MAY	225.1	42.76	10783	973	
1963 14A		574	US	9 MAY	166.4	87.54	3669	3622	
1963 14B		579	US	9 MAY	166.4	87.26	4258	3033	
1963 14C		608	US	9 MAY	166.4	87.33	3700	3590	
1963 14D		589	US	9 MAY	CURRENT ELEMENTS NOT MAINTAINED				
1963 14E		602	US	9 MAY	166.1	87.33	3658	3604	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1963 LAUNCHES (CONT'D)									
1963 14F		628	US	9 MAY	166.8	87.32	3662	3660	
1963 14G		629	US	9 MAY	166.4	87.32	3724	3566	
1963 14H		702	US	9 MAY	166.4	87.32	3683	3607	
1963 22A		594	US	16 JUN	99.7	90.01	760	729	\$150\$400
1963 22B		603	US	16 JUN	99.7	90.00	758	731	
1963 22C		610	US	16 JUN	101.2	90.22	893	739	
1963 22D		611	US	16 JUN	98.0	89.81	763	570	
1963 24A	TIROS 7	604	US	19 JUN	97.4	58.22	648	623	\$136.233\$136.924
1963 24B	ROCKET BODY	605	US	19 JUN	97.3	58.22	638	622	
1963 24C	METAL OBJECT	606	US	19 JUN	97.9	58.37	679	634	
1963 24D	METAL OBJECT	607	US	19 JUN	96.9	58.09	642	575	
1963 25B		614	US	27 JUN	131.9	82.19	4077	339	
1963 26A	RESEARCH SATELLITE FOR GEOPHYSICS	612	US	28 JUN	102.0	49.72	1288	414	
1963 27A		613	US	29 JUN	94.6	82.33	516	482	
1963 30A		622	US	18 JUL	167.8	88.44	3737	3668	
1963 30B		635	US	18 JUL	167.9	88.43	3738	3667	
1963 30C		630	US	18 JUL	167.5	88.44	3726	3650	
1963 30D		624	US	18 JUL	167.3	87.88	4777	2581	
1963 30E		631	US	18 JUL	168.3	88.45	3788	3651	\$136.467\$136.980
1963 31A	SYNCOM 2	634	US	26 JUL	1436.4	31.04	35824	35760	\$1814.069 \$1815.794 \$1820.177
1963 31B	ROCKET BODY	625	US	26 JUL	CURRENT ELEMENTS NOT MAINTAINED				
1963 38A		669	US	28 SEP	107.1	89.91	1114	1073	
1963 38B		670	US	28 SEP	107.4	89.91	1139	1072	
1963 38C		671	US	28 SEP	107.3	89.91	1138	1072	\$136.653\$162\$324
1963 38D		672	US	28 SEP	107.3	89.95	1147	1061	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI- NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1963 LAUNCHES (CONT'D)									
1963 38E		745	US	28 SEP	107.1	89.95	1111	1074	
1963 38F		2097	US	28 SEP	107.3	89.94	1138	1068	
1963 39A		674	US	17 OCT	6484.8	37.69	117941	99687	
1963 39B		675	US	17 OCT	CURRENT	ELEMENTS	NOT MAINTAINED		
1963 39C		692	US	17 OCT	6513.9	36.59	115287	'103030	
1963 43A	POLYOT 1	683	USSR	1 NOV	102.2	58.90	1385	336	
1963 43B		684	USSR	1 NOV	96.3	58.61	843	314	
1963 43D		686	USSR	1 NOV	96.5	59.82	841	330	
1963 46A	EXPLORER 18	693	US	27 NOV	CURRENT	ELEMENTS	NOT MAINTAINED		
1963 47A	CENTAUR 2	694	US	27 NOV	107.8	30.36	1761	485	
1963 47B		696	US	27 NOV	107.2	30.05	1611	581	
1963 47C		697	US	27 NOV	107.4	30.07	1631	580	
1963 47D		698	US	27 NOV	108.0	29.91	1653	614	
1963 47E		699	US	27 NOV	108.6	30.44	1745	573	
1963 47F		700	US	27 NOV	108.6	30.47	1752	573	
1963 47G		701	US	27 NOV	107.8	30.00	1644	605	
1963 47H		739	US	27 NOV	105.9	30.41	1592	477	
1963 47J		1994	US	27 NOV	108.8	30.52	1772	564	
1963 49A		703	US	5 DEC	106.8	89.95	1089	1071	\$150\$400
1963 49B		704	US	5 DEC	107.1	89.94	1120	1070	
1963 49C		705	US	5 DEC	107.1	89.94	1118	1070	
1963 49D		706	US	5 DEC	107.0	89.94	1108	1075	
1963 49E		715	US	5 DEC	107.1	89.96	1114	1072	
1963 49F		753	US	5 DEC	107.1	89.98	1115	1073	
1963 53A	EXPLORER 19	714	US	19 DEC	115.0	78.68	2245	664	
1963 53B		721	US	19 DEC	115.8	78.59	2397	593	
1963 53C		722	US	19 DEC	115.8	78.58	2374	612	
1963 53D		723	US	19 DEC	115.8	78.64	2379	609	
1963 53E		724	US	19 DEC	115.9	78.59	2369	626	
1963 53F		725	US	19 DEC	115.7	78.63	2374	604	
1963 53G		726	US	19 DEC	115.7	78.38	2387	594	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1963 LAUNCHES (CONT'D)									
1963 53H		732	US	19 DEC	115.7	78.62	2389	589	
1963 54A	TIROS 8	716	US	21 DEC	99.4	58.49	758	698	\$136.231\$136.924
1963 54B		717	US	21 DEC	99.3	58.51	749	700	
1963 54C		720	US	21 DEC	101.1	58.47	925	693	
1963 54D		736	US	21 DEC	97.7	58.52	706	587	
1964 LAUNCHES									
1964 01A		727	US	11 JAN	103.4	69.91	941	904	
1964 01B	GGSE	728	US	11 JAN	103.4	69.91	932	913	
1964 01C	EGRS 1	729	US	11 JAN	103.4	69.92	933	912	136.805
1964 01D	SOLAR RAD.	730	US	11 JAN	103.4	69.92	933	912	136.886
1964 01E		731	US	11 JAN	103.5	69.91	933	913	
1964 02A		733	US	19 JAN	101.3	99.15	851	791	
1964 02B		734	US	19 JAN	101.3	99.10	835	804	
1964 02C		735	US	19 JAN	101.3	99.13	835	808	
1964 03A	RELAY 2	737	US	21 JAN	194.7	46.33	7426	2074	136.620\$136.142
1964 03B		738	US	21 JAN	194.8	46.33	7432	2074	
1964 04A	ECHO 2	740	US	25 JAN	107.9	81.45	1216	1040	136.019;136.170
1964 04B		741	US	25 JAN	108.9	81.49	1309	1046	
1964 04C		742	US	25 JAN	108.8	81.49	1308	1041	
1964 04D		743	US	25 JAN	108.8	81.54	1308	1040	
1964 06A	ELEKTRON 1	746	USSR	30 JAN	169.2	60.89	7108	405	
1964 06B	ELEKTRON 2	748	USSR	30 JAN	1356.4	58.34	66328	2096	
1964 06C		750	USSR	30 JAN	167.8	60.88	7010	387	
1964 06D		751	USSR	30 JAN	1384.0	58.56	67337	2186	
1964 11A		759	US	28 FEB	94.5	82.09	504	486	
1964 15A	ARIEL 2	771	US/UK	27 MAR	98.7	51.63	1111	282	136.557
1964 15B		775	US	27 MAR	97.7	51.63	999	280	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1964 LAUNCHES (CONT'D)									
1964 15C		847	US	27 MAR	102.6	51.37	1387	369	
1964 16D		785	USSR	2 APR	HELIOCENTRIC ORBIT				
1964 19B	POLYOT 2	784	USSR	12 APR	89.3	58.03	239	227	
1964 26A		801	US	4 JUN	103.1	90.51	951	859	\$150\$400
1964 26B		805	US	4 JUN	103.8	90.21	987	896	
1964 26C		806	US	4 JUN	102.3	90.87	944	791	
1964 26D		809	US	4 JUN	103.1	90.53	953	858	
1964 31A		812	US	13 JUN	101.6	99.72	849	819	
1964 31B		813	US	18 JUN	101.6	99.76	840	831	
1964 31C		815	US	18 JUN	101.6	99.82	847	820	
1964 35A		824	US	2 JUL	94.7	82.08	525	491	
1964 38A	ELECKTRON 3	829	USSR	10 JUL	168.1	60.90	7030	390	
1964 38B	ELECKTRON 4	830	USSR	10 JUL	1313.8	58.91	65355	1364	
1964 38C		831	USSR	10 JUL	168.2	60.90	7018	415	
1964 38D		832	USSR	10 JUL	1341.3	58.98	66431	1391	
1964 40A		836	US	17 JUL	6025.9	38.69	103875	102754	
1964 40B		837	US	17 JUL	6006.3	40.37	116677	89475	
1964 40C		838	US	17 JUL	CURRENT ELEMENTS NOT MAINTAINED				
1964 41B		843	US	28 JUL	BARYCENTRIC ORBIT				
1964 45B		851	JS	14 AUG	125.7	95.68	3597	271	\$136.470\$136.980
1964 47A	SYNCOM 3	858	US	19 AUG	1436.7	.77	35804	35790	\$1820.177
									\$1815.794
									\$1814.931
1964 47B		862	US	19 AUG	CURRENT ELEMENTS NOT MAINTAINED				
1964 49D	COSMOS 41	869	USSR	22 AUG	713.4	67.32	38660	1025	
1964 49E		898	USSR	22 AUG	717.8	67.49	39353	1008	
1964 51A	EXPLORER 20	870	US	25 AUG	103.9	79.91	1023	867	\$136.326\$136.350
1964 51B		871	US	25 AUG	103.8	79.91	1016	867	\$136.680
1964 51C		873	US	25 AUG	103.1	79.83	959	848	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1964 LAUNCHES (CONT'D)									
1964 51D		874	US	25 AUG	103.1	79.82	985	832	
1964 51E		875	US	25 AUG	103.2	79.83	1013	806	
1964 52A	NUMBUS 1	872	US	28 AUG	98.2	98.72	922	426	
1964 52B		878	US	28 AUG	98.2	98.72	924	426	
1964 53A	COSMOS 44	876	USSR	28 AUG	99.5	65.10	861	610	
1964 53B		877	USSR	28 AUG	99.6	65.09	805	674	
1964 54A	OGO 1	879	US	5 SEP	3842.1	49.03	137680	12082	\$136.200\$400.250 \$400.850
1964 60A	EXPLORER 21	889	US	4 OCT	CURRENT ELEMENTS NOT MAINTAINED				
1964 63A		893	US	6 OCT	106.3	89.90	1077	1038	
1964 63B		897	US	6 OCT	106.6	89.90	1079	1061	
1964 63C		900	US	6 OCT	106.6	89.91	1083	1054	
1964 63D		901	US	6 OCT	106.6	89.88	1086	1057	
1964 63E		902	US	6 OCT	106.6	89.90	1079	1062	
1964 63F		903	US	6 OCT	106.6	89.91	1088	1054	
1964 64A	EXPLORER 22	899	US	10 OCT	104.8	79.70	1083	886	\$136.171\$162\$324 \$20\$40\$41\$360
1964 64B		907	US	10 OCT	104.7	79.69	1079	888	
1964 64C		976	US	10 OCT	104.0	79.34	1064	838	
1964 64D		977	US	10 OCT	105.5	80.06	1126	910	
1964 72A		922	US	4 NOV	94.9	82.03	520	507	
1964 72B		925	US	4 NOV	94.6	82.04	508	494	
1964 72C		926	US	4 NOV	92.5	82.05	390	390	
1964 72D		927	US	4 NOV	92.6	82.01	392	392	
1964 73A	MARINER 3	923	US	5 NOV	HELIOCENTRIC ORBIT				
1964 74A	EXPLORER 23	924	US	6 NOV	99.2	51.95	978	460	\$136.078\$136.861 136.709
1964 76A	EXPLORER 24	931	US	21 NOV	115.2	81.42	2365	573	
1964 76B	EXPLORER 25	932	US	21 NOV	116.2	81.38	2493	530	\$136.292\$136.860
1964 76C		933	US	21 NOV	116.2	81.35	2493	532	
1964 76D		934	US	21 NOV	116.3	81.36	2484	546	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1964 LAUNCHES (CONT'D)									
1964 76E		935	US	21 NOV	116.1	81.38	2491	524	
1964 76F		936	US	21 NOV	115.0	81.31	2348	563	
1964 76G		937	US	21 NOV	116.0	81.36	2467	537	
1964 76H		939	US	21 NOV	114.6	81.34	2312	566	
1964 76I		940	US	21 NOV	116.0	81.36	2470	534	
1964 76J		941	US	21 NOV	116.2	81.35	2471	548	
1964 76K		960	US	21 NOV	116.5	81.47	2444	605	
1964 76L		1411	US	21 NOV	116.3	81.37	2483	547	
1964 77A	MARINER 4	938	US	28 NOV	HELIOCENTRIC ORBIT				
1964 77B		942	US	28 NOV	HELIOCENTRIC ORBIT				
1964 78C	ZOND 2	945	USSR	30 NOV	HELIOCENTRIC ORBIT				
1964 83A		953	US	13 DEC	106.0	89.97	1072	1015	135.650\$162\$324 \$150.\$400
1964 83B		956	US	13 DEC	106.3	90.00	1086	1027	
1964 83C		959	US	13 DEC	106.3	89.99	1091	1023	
1964 83D		965	US	13 DEC	106.3	89.98	1087	1028	
1964 83E		966	US	13 DEC	106.3	89.97	1087	1027	
1964 83F		967	US	13 DEC	106.3	89.98	1085	1027	
1964 83G		1099	US	13 DEC	106.3	89.99	1089	1025	
1964 83H		1528	US	13 DEC	107.3	89.93	1048	1061	
1964 83J		1608	US	13 DEC	106.3	89.96	1085	1028	
1964 86A	EXPLORER 26	963	US	21 DEC	449.7	19.90	25874	253	136.273
1965 LAUNCHES									
1965 03A		973	US	19 JAN	97.6	98.71	829	460	
1965 04A	TIROS 9	978	US	22 JAN	119.2	96.40	2580	709	\$136.234\$136.198
1965 04B		979	US	22 JAN	119.3	96.42	2592	708	
1965 04C		1312	US	22 JAN	118.0	96.36	2507	679	
1965 04D		1313	US	22 JAN	120.4	96.42	2669	729	
1965 06A	COSMOS 53	983	USSR	30 JAN	92.7	48.70	578	208	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI- NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 07A	ORB.SOL.OBS. 2	987	US	3 FEB	96.5	32.85	633	542	136.713
1965 07B		988	US	3 FEB	96.5	32.86	636	545	
1965 08A		1000	US	11 FEB	145.6	32.13	2801	2777	
1965 08B		1001	US	11 FEB	145.4	32.13	2790	2766	
1965 08C		1002	US	11 FEB	145.7	32.13	2806	2779	
1965 09A	PEGASUS 1	1085	US	16 FEB	97.0	31.75	725	498	\$136.410;136.890
1965 09B		1088	US	16 FEB	97.1	31.74	735	496	
1965 10B		1087	US	17 FEB	BARYCENTRIC ORBIT				
1965 11A	COSMOS 54	1089	USSR	21 FEB	103.1	56.05	1536	258	
1965 11B	COSMOS 55	1090	USSR	21 FEB	102.8	56.04	1514	262	
1965 11C	COSMOS 56	1091	USSR	21 FEB	101.6	56.03	1405	257	
1965 11D		1092	USSR	21 FEB	105.1	56.05	1729	267	
1965 14A	COSMOS 58	1097	USSR	26 FEB	96.8	65.03	624	585	
1965 14B		1098	USSR	26 FEB	96.9	65.03	703	515	
1965 16A	GREB	1271	US	9 MAR	103.5	70.05	941	909	
1965 16B	GRAVITY GRADIENT II	1244	US	9 MAR	103.5	70.07	941	909	
1965 16C	GRAVITY GRADIENT III	1292	US	9 MAR	103.5	70.08	940	909	136.766
1965 16D	SOLAR RAD.	1291	US	9 MAR	103.5	70.09	940	910	136.800
1965 16E	EGRS III	1208	US	9 MAR	103.5	70.08	938	910	136.840
1965 16F	OSCAR III	1293	US	9 MAR	103.5	70.08	939	909	
1965 16G	SURCAL	1310	US	9 MAR	103.4	70.08	938	906	
1965 16H	DODECAHEDRON	1272	US	9 MAR	103.5	70.09	942	907	
1965 16J	ROCKET BODY	1245	US	9 MAR	103.5	70.10	940	907	
1965 17B	EGRS II	1250	US	11 MAR	96.8	89.98	928	285	
1965 17C		1228	US	11 MAR	96.4	89.98	889	280	
1965 17D		1248	US	11 MAR	96.3	90.00	879	286	
1965 20A	COSMOS 61	1267	USSR	15 MAR	102.6	56.01	1497	260	
1965 20B	COSMOS 62	1268	USSR	15 MAR	103.0	56.03	1541	260	
1965 20C	COSMOS 63	1269	USSR	15 MAR	101.6	55.99	1412	257	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1965 LAUNCHES (CONT'D)									
1965 20D-20EE***			USSR	15 MAR					
1965 21A		1273	US	18 MAR	97.5	98.99	759	525	
1965 21C		1289	US	18 MAR	97.5	98.99	758	525	
1965 21E		1376	US	18 MAR	96.4	98.98	654	519	
1965 21F		1463	US	18 MAR	98.6	99.03	860	526	
1965 23B		1298	US	21 MAR	BARYCENTRIC ORBIT				
1965 27A		1314	US	3 APR	111.5	90.19	1321	1275	
1965 27B		1315	US	3 APR	111.4	90.20	1324	1266	
1965 27C	EGRS IV	1316	US	3 APR	111.5	90.25	1319	1273	
1965 27D		1389	US	3 APR	111.5	90.20	1316	1278	
1965 27E		1399	US	3 APR	111.5	90.19	1318	1277	
1965 28A	EARLY BIRD	1317	US	6 APR	1437.3	.13	36596	35025	
1965 28B	ROCKET BODY	1318	US	6 APR	CURRENT ELEMENTS NOT MAINTAINED				
1965 30A	MOLNIA 1	1324	USSR	23 APR	720.2	65.38	39555	924	
1965 30D		1967	USSR	23 APR	702.7	64.95	38669	940	
1965 31B		1329	US	28 APR	95.0	95.20	543	502	
1965 32A	EXPLORER 27	1328	US	29 APR	107.8	41.17	1313	939	\$136.740\$162\$324 \$20\$40\$41\$360
1965 32B		1358	US	29 APR	107.8	41.17	1315	936	
1965 32C		1995	US	29 APR	106.7	41.09	1309	837	
1965 32D		2011	US	29 APR	109.0	41.17	1297	1064	
1965 34A		1359	US	6 MAY	157.0	32.12	3740	2782	
1965 34B		1360	US	6 MAY	309.9	32.21	14798	2784	
1965 34C		1361	US	6 MAY	145.6	32.13	2797	2777	
1965 38A		1377	US	20 MAY	100.0	98.57	964	555	
1965 38B		1378	US	20 MAY	100.0	98.59	965	555	
1965 38C		1379	US	20 MAY	99.9	98.62	957	556	
1965 38E		1461	US	20 MAY	101.0	98.63	1060	549	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI- NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/S)
1965 LAUNCHES (CONT'D)									
1965 38F		1462	US	20 MAY	98.9	98.57	864	553	
1965 38G		1475	US	20 MAY	100.1	98.56	978	554	
1965 39A	PEGASUS 2	1381	US	25 MAY	97.1	31.76	733	507	\$136.410; 136.889
1965 39B	ROCKET BODY	1385	US	25 MAY	97.2	31.75	736	510	
1965 42A	EXPLORER 28	1388	US	29 MAY	8558.8	33.86	264247	196	136.125
1965 44A	LUNIK 6	1393	USSR	8 JUN	HELIOCENTRIC ORBIT				
1965 48A		1420	US	24 JUN	106.9	90.00	1142	1028	
1965 48B		1425	US	24 JUN	106.9	89.97	1138	1030	
1965 48C		1428	US	24 JUN	106.6	89.96	1114	1026	
1965 48D		1435	US	24 JUN	106.9	90.00	1139	1033	
1965 50A		1422	US	25 JUN	94.6	107.64	504	492	
1965 51A	TIROS 10	1430	US	2 JUL	100.7	98.61	840	742	\$136.232\$136.924
1965 51B		1433	US	2 JUL	100.7	98.65	845	742	
1965 51C		1440	US	2 JUL	99.3	98.50	841	615	
1965 51D		1529	US	2 JUL	102.0	98.69	885	827	
1965 52A	COSMOS 70	1431	USSR	2 JUL	95.2	48.72	832	216	
1965 52B		1432	USSR	2 JUL	90.8	48.72	398	204	
1965 53A	COSMOS 71	1441	USSR	16 JUL	95.2	56.04	536	523	
1965 53B	COSMOS 72	1442	USSR	16 JUL	95.9	56.07	583	541	
1965 53C	COSMOS 73	1443	USSR	16 JUL	95.6	56.07	554	537	
1965 53D	COSMOS 74	1444	USSR	16 JUL	96.2	56.05	615	539	
1965 53E	COSMOS 75	1445	USSR	16 JUL	96.5	56.05	643	539	
1965 53F		1448	USSR	16 JUL	96.6	56.08	645	544	
1965 53G		1449	USSR	16 JUL	94.9	56.05	521	504	
1965 53H		1473	USSR	16 JUL	96.6	56.05	653	542	
1965 55A		1447	US	17 JUL	94.3	70.16	507	468	
1965 55B		1452	US	17 JUL	91.5	70.12	338	338	
1965 55C		1455	US	17 JUL	92.9	70.15	426	406	

OBJECTS IN ORBIT

OBJECT	CODE NAME	CATALOGUE NUMBER	SOURCE	LAUNCH	PERIOD MINUTES	INCLI- NATION	APOGEE Km.	PERIGEE Km.	TRANSMITTING FREQ. (MC/SS)
1965 LAUNCHES (CONT'D)									
1965 56A	ZOND 3	1454	USSR	18 JUL	HELIOCENTRIC ORBIT				
1965 58A		1458	US	20 JUL	6709.8	34.70	117344	105583	
1965 58B		1459	US	20 JUL	6723.9	34.44	123142	100116	
1965 58C		1460	US	20 JUL	2595.4	36.88	111793	566	136.768
1965 60A	PEGASUS 3	1467	US	30 JUL	95.1	28.87	536	508	\$136.410;136.590
1965 60B		1468	US	30 JUL	95.2	28.87	533	519	
1965 62B		1472	US	3 AUG	94.6	107.36	505	498	
1965 63A	EGRS 5	1506	US	10 AUG	122.2	69.23	2427	1134	136.840
1965 63B		1502	US	10 AUG	122.2	69.25	2426	1137	
1965 64A	CENTAUR 6	1503	US	11 AUG	HELIOCENTRIC ORBIT				
1965 65A		1504	US	13 AUG	108.1	90.03	1193	1088	
1965 65B		1508	US	13 AUG	107.9	90.01	1159	1102	
1965 65C		1510	US	13 AUG	108.1	90.02	1191	1086	
1965 65D		1511	US	13 AUG	108.1	90.01	1185	1096	
1965 65E		1512	US	13 AUG	108.1	90.02	1191	1090	
1965 65F		1514	US	13 AUG	108.1	90.01	1195	1089	
1965 65G		1515	US	13 AUG	108.1	90.00	1193	1083	
1965 65H		1520	US	13 AUG	108.1	90.01	1194	1088	
1965 65J		1521	US	13 AUG	108.1	90.00	1189	1092	
1965 65K		1522	US	13 AUG	108.1	90.02	1194	1089	
1965 65L		1577	US	13 AUG	108.1	90.07	1201	1082	
1965 70A	COSMOS 80	1570	USSR	3 SEP	115.0	56.10	1553	1356	
1965 70B	COSMOS 81	1571	USSR	3 SEP	115.3	56.09	1558	1383	
1965 70C	COSMOS 82	1572	USSR	3 SEP	115.7	56.09	1566	1407	
1965 70D	COSMOS 83	1573	USSR	3 SEP	116.1	56.08	1570	1437	
1965 70E	COSMOS 84	1574	USSR	3 SEP	116.4	56.08	1578	1463	
1965 70F		1575	USSR	3 SEP	114.6	56.17	1515	1359	
1965 72A		1580	US	10 SEP	101.9	98.63	1051	652	
1965 72B		1581	US	10 SEP	101.0	98.84	942	672	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1965 LAUNCHES (CONT'D)									
1965 72C		1582	US	10 SEP	101.0	98.79	979	637	
1965 72D		1583	US	10 SEP	101.9	98.63	1051	653	
1965 72E		1931	US	10 SEP	103.3	98.63	1185	649	
1965 72F		1932	US	10 SEP	100.7	98.62	936	650	
1965 73A	COSMOS 86	1584	USSR	18 SEP	115.1	56.09	1637	1279	
1965 73B	COSMOS 87	1585	USSR	18 SEP	115.5	56.04	1651	1302	
1965 73C	COSMOS 88	1586	USSR	18 SEP	115.8	56.09	1665	1322	
1965 73D	COSMOS 89	1587	USSR	18 SEP	116.2	56.08	1681	1344	
1965 73E	COSMOS 90	1588	USSR	18 SEP	116.7	56.10	1689	1373	
1965 73F		1589	USSR	18 SEP	116.8	56.08	1700	1375	
1965 73G		1590	USSR	18 SEP	116.5	56.09	1683	1365	
1965 73H		1591	USSR	18 SEP	116.7	56.03	1693	1371	
1965 73J		1617	USSR	18 SEP	117.5	56.11	1764	1375	
1965 73K		1618	USSR	18 SEP	117.7	56.18	1769	1387	
1965 78A		1613	US	5 OCT	125.7	144.29	3449	413	
1965 78B		1616	US	5 OCT	125.6	144.29	3443	414	
1965 80A	2nd MOLNIYA I	1621	USSR	13 OCT	716.6	64.93	39735	560	\$136.200\$400.250
1965 81A	OGO 2	1620	US	14 OCT	104.3	87.39	1508	421	\$400.850
1965 81B		1625	US	14 OCT	104.3	87.38	1502	421	
1965 82A	TITAN 3 C-4	1624	US	15 OCT	100.0	32.31	784	726	
1965 82B-82KC****			US	15 OCT					
1965 84E		2098	USSR	19 OCT	93.9	48.44	513	410	\$136.830\$162
1965 89A	EXPLORER 29	1726	US	6 NOV	120.3	59.38	2271	1121	\$324\$972
1965 89B		1729	US	6 NOV	120.3	59.39	2270	1120	
1965 91A	VENERA 2	1730	USSR	12 NOV	HELIOCENTRIC ORBIT				
1965 92D		1736	USSR	16 NOV	HELIOCENTRIC ORBIT				
1965 93A	EXPLORER 30	1738	US	19 NOV	100.8	59.74	903	689	136.530
1965 93B		1739	US	19 NOV	100.8	59.73	876	713	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1965 LAUNCHES (CONT'D)									
1965 93C		2013	US	19 NOV	100.3	59.67	842	704	
1965 93D		2088	US	19 NOV	101.4	59.71	918	730	
1965 95A	COSMOS 91	1777	USSR	26 NOV	105.4	48.44	1802	210	
1965 95B		1779	USSR	26 NOV	104.3	48.44	1701	211	
1965 96A	A-1	1778	FRENCH	26 NOV	108.7	34.25	1799	529	
1965 96B		1805	FRENCH	26 NOV	108.8	34.25	1811	525	
1965 96C		1938	FRENCH	26 NOV	105.5	34.24	1527	500	
1965 96D		1996	FRENCH	26 NOV	108.6	34.25	1792	528	
1965 98A	ALOUETTE	1804	CANADA	29 NOV	121.4	79.82	2985	505	\$136.080\$136.590
1965 98B		1806	US	29 NOV	121.3	79.86	2976	502	136.980
1965 98C	EXPLORER 31	1807	US	29 NOV	121.3	79.85	2981	503	\$136.380
1965 98D		1808	US	29 NOV	121.3	79.87	2981	500	
1965 98E		1944	US	29 NOV	121.4	79.83	2988	504	
1965 98F		1948	US	29 NOV	121.4	79.91	2982	506	
1965 98G		1951	US	29 NOV	121.3	79.75	2974	501	
1965 98H		2092	US	29 NOV	121.4	79.89	2985	503	
1965 98J		2153	US	29 NOV	121.3	79.78	2987	495	
1965 101A	FR-1	1814	FRENCH	6 DEC	99.9	75.87	761	748	\$136.350 136.800
1965 101B		1815	US	6 DEC	100.0	75.89	774	747	
1965 101C		1934	US	6 DEC	99.9	76.49	780	733	
1965 101D		1935	US	6 DEC	99.5	75.26	778	698	
1965 105A	PIONEER 6	1841	US	16 DEC	HELIOCENTRIC ORBIT				
1965 105B		1842	US	16 DEC	99.8	30.16	1221	271	
1965 106A	COSMOS 100	1843	USSR	17 DEC	97.6	64.99	656	631	
1965 106B		1844	USSR	17 DEC	97.7	65.00	731	571	
1965 107A	COSMOS 101	1846	USSR	21 DEC	90.8	48.76	377	237	
1965 108A	TITAN 3 C-8	1863	US	21 DEC	503.2	26.49	28976	179	
1965 108B	LES 4	1870	US	21 DEC	578.0	26.50	33265	216	
1965 108C	OSCAR IV	1902	US	21 DEC	579.4	26.73	32905	161	
1965 108D	LES 3	1941	US	21 DEC	467.2	26.27	21789	202	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1965 LAUNCHES (CONT'D)									
1965 109A		1864	US	22 DEC	105.0	89.13	1086	909	
1965 109B		1865	US	22 DEC	105.0	89.11	1080	914	
1965 109C		2086	US	22 DEC	103.8	89.19	986	889	
1965 112A	COSMOS 103	1868	USSR	28 DEC	97.0	56.04	639	591	
1965 112B-112Q****			USSR	28 DEC					
1966 LAUNCHES									
1966 04A	COSMOS 106	1949	USSR	25 JAN	92.3	48.38	484	277	
1966 04B		1950	USSR	25 JAN	91.3	48.37	399	269	
1966 05A		1952	US	28 JAN	105.9	89.73	1214	865	
1966 05B		1953	US	28 JAN	105.9	89.69	1211	865	
1966 05C		2140	US	28 JAN	107.9	89.92	1434	826	
1966 05D		2141	US	28 JAN	104.5	89.75	1085	857	
1966 06D		2001	USSR	31 JAN	BARYCENTRIC ORBIT				
1966 08A	ESSA-1	1982	US	3 FEB	100.3	97.90	839	708	\$136.230\$136.920
1966 08B		1983	US	3 FEB	100.5	97.90	867	705	
1966 08C		2085	US	3 FEB	99.2	97.76	752	694	
1966 08D		2118	US	3 FEB	101.4	98.04	954	694	
1966 08E		2154	US	3 FEB	100.3	97.83	831	716	
1966 09A		1997	US	9 FEB	94.8	82.08	510	507	
1966 09B		2003	US	9 FEB	94.4	82.07	491	486	
1966 09C		2004	US	9 FEB	94.5	82.10	489	487	
1966 11A	COSMOS 108	2002	USSR	11 FEB	93.9	48.89	709	214	
1966 11B		2007	USSR	11 FEB	90.0	48.80	304	195	
1966 13A	D-1A	2016	FRENCH	17 FEB	118.6	34.06	2733	504	
1966 13B		2017	FRENCH	17 FEB	118.7	34.06	2744	500	
1966 13C		2018	FRENCH	17 FEB	118.8	34.03	2724	526	
1966 13D		2020	FRENCH	17 FEB	117.5	34.06	2615	506	
1966 13E		2021	FRENCH	17 FEB	118.1	34.06	2658	524	
1966 13F		2023	FRENCH	17 FEB	117.8	34.02	2683	475	
1966 13G		2161	FRENCH	17 FEB	119.5	34.11	2798	516	

- 18 -

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1966 LAUNCHES (CONT'D)									
1966 16A	ESSA 2	2091	US	28 FEB	113.5	100.98	1418	1356	\$136.770\$137.500
1966 16B		2096	US	28 FEB	113.5	100.96	1422	1355	
1966 19A	GEMINI AGENA TARGET VEHICLE	2104	US	16 MAR	92.6	28.87	402	396	
1966 24A		2119	US	26 MAR	105.3	89.74	1128	892	
1966 24B		2120	US	26 MAR	105.3	89.74	1128	892	
1966 25A	OV1-4	2121	US	30 MAR	104.1	144.52	1013	887	
1966 25B	OV1-5	2122	US	30 MAR	105.6	144.65	1060	986	
1966 25C		2123	US	30 MAR	105.6	144.67	1059	986	
1966 25D		2124	US	30 MAR	104.1	144.55	1014	884	
1966 26A		2125	US	31 MAR	100.5	98.62	937	631	
1966 26B		2129	US	31 MAR	100.5	98.62	938	631	
1966 26C		2162	US	31 MAR	99.9	98.54	854	650	
1966 26D		2177	US	31 MAR	102.4	98.62	1112	632	
1966 26E		2178	US	31 MAR	98.7	98.61	768	630	
1966 26F		2179	US	31 MAR	100.2	98.63	909	632	
1966 27A	LUNA 10	2126	USSR	31 MAR	SELENOCENTRIC ORBIT				
1966 27D		2130	USSR	31 MAR	HELIOCENTRIC ORBIT				
1966 27E		2131	USSR	31 MAR	BARYCENTRIC ORBIT				
1966 27F		2132	USSR	31 MAR	BARYCENTRIC ORBIT				
1966 31A	QAO 1	2142	US	8 APR	100.9	35.02	805	792	136.440\$136.260 \$400.550
1966 31B		2144	US	8 APR	100.8	35.04	807	785	
1966 31C		2145	US	8 APR	100.9	34.03	804	791	
1966 34A	OV3-1	2150	US	22 APR	151.7	82.45	5738	352	
1966 34B		2167	US	22 APR	151.7	82.46	5734	354	
1966 35A	3rd MOLNIYA I	2151	USSR	25 APR	709.5	64.67	39474	472	
1966 36A	COSMOS 116	2152	USSR	26 APR	92.0	48.36	445	288	
1966 36B		2159	USSR	26 APR	91.5	48.36	409	285	
1966 38A	COSMOS 118	2168	USSR	11 MAY	97.1	65.02	660	583	

OBJECTS IN ORBIT

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>PERIOD MINUTES</u>	<u>INCLI- NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
1966 LAUNCHES (CONT'D)									
1966 38B		2169	USSR	11 MAY	97.0	64.99	677	556	
1966 39B		2172	US	14 MAY	95.4	109.94	555	519	
1966 40A	NIMBUS 2	2173	US	15 MAY	108.1	100.33	1187	1095	136.500\$136.950
1966 40B		2174	US	15 MAY	107.9	100.31	1174	11086	\$137.200\$1707.5
1966 41A		2176	US	19 MAY	103.4	90.00	981	861	
1966 41B		2180	US	19 MAY	103.4	90.00	983	862	
1966 42A		2181	US	24 MAY	88.8	66.04	156	156	
1966 43A	COSMOS 119	2182	USSR	24 MAY	99.8	48.38	1281	210	
1966 44A	EXPLORER 32	2183	US	25 MAY	116.0	64.65	2722	283	\$136.320\$136.560
1966 44B		2184	US	25 MAY	115.9	64.66	2716	280	
1966 45A	SURVEYOR 1	2185	US	30 MAY	BARYCENTRIC ORBIT				

DECAYED OBJECTS

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>LAUNCH</u>	<u>DECAY</u>
<u>PLEASE ADD THE FOLLOWING TO THE DECAYED OBJECTS LISTS:</u>					
1965 20AQ		1409	USSR	15 MAR	19 MAY 66
1965 20AW		1436	USSR	15 MAR	30 MAY 66
1966 21B		2108	USSR	17 MAR	17 MAY 66
1966 37B		2164	USSR	6 MAY	21 MAY 66
1966 37E		2170	USSR	6 MAY	16 MAY 66
1966 39A		2171	US	14 MAY	21 MAY 66
1966 39C		2175	US	14 MAY	17 MAY 66

FOLLOWING ARE THE INITIAL ELEMENTS OF OBJECTS WHOSE LAUNCH AND ORBIT DECAY OCCURED WITHIN THE REPORTING PERIOD:

<u>OBJECT</u>	<u>CODE NAME</u>	<u>CATALOGUE NUMBER</u>	<u>SOURCE</u>	<u>PERIOD MINUTES</u>	<u>INCLI - NATION</u>	<u>APOGEE Km.</u>	<u>PERIGEE Km.</u>	<u>TRANSMITTING FREQ. (MC/S)</u>
---------------	------------------	-----------------------------	---------------	---------------------------	---------------------------	-----------------------	------------------------	--------------------------------------

(NONE FOR THIS REPORT PERIOD)

* APHELION PERIHELION IN ASTRONOMICAL UNITS, INCLINATION TO ECLIPTIC.
 ** TWO HUNDRED AND TEN METAL OBJECTS HAVE BEEN IDENTIFIED AS HAVING BEEN LAUNCHED WITH 1961 OMICRON 1 AND 1961 OMICRON 2. OBJECTS OF THIS SERIES THAT HAVE DECAYED CAN BE FOUND IN THE DECAYED OBJECTS LISTS.
 *** ONE HUNDRED AND TWENTY TWO OBJECTS HAVE BEEN IDENTIFIED AS HAVING BEEN LAUNCHED WITH 1965 20A, 1965 20B AND 1965 20C. OBJECTS OF THIS SERIES THAT HAVE DECAYED CAN BE FOUND IN THE DECAYED OBJECTS LISTS.
 **** TWO HUNDRED AND FORTY TWO OBJECTS HAVE BEEN IDENTIFIED AS DEBRIS ASSOCIATED WITH 1965 82A. OBJECTS OF THIS SERIES THAT HAVE DECAYED CAN BE FOUND IN THE DECAYED OBJECTS LISTS.
 ***** FOURTEEN OBJECTS HAVE BEEN IDENTIFIED AS DEBRIS ASSOCIATED WITH 1965 112A.
 § TRANSMITTING ON COMMAND ONLY.
 & TRANSMITTING WHEN IN SUNLIGHT ONLY.
 # NO CATALOGUE NUMBER ASSIGNED.